

Work Order ID 55384

January 15, 2010 8:52:29 AM

Page 1

Item ID: D3628-1

Accept

Setup Start

Revision ID:

Stop

Item Name: Cupped Washer

Start Date: 1/15/10 Start Qty: 500.00

Cust Item ID:

Required Date: 1/29/10 Req'd Qty: 500.00

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start

QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Draw
Number

Draw
Rev.

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

Draw Nbr

Revision Nbr

D3628

Rev B

100

0.00



Purchasing

PURCHASING

Memo

0.00

Purchasing

Issue P/O: 11137 Email or Ship DXF file to vendor Laser Cut
D3628-1 flat pattern and form as per Dwg D3628. Possible Supplier:
GFI. Material release note is required

10-1-15
(500)

110

Receive & Inspect for Damage & Mat'l Certs

0.00



Packaging

Memo

0.00

Packaging

Ensure material certification is attached

10-1-15
(500)

120

QC6- Inspect dimensions to drawing

0.00



QC

Memo

0.00

Quality Control

⇒ 8101021-1

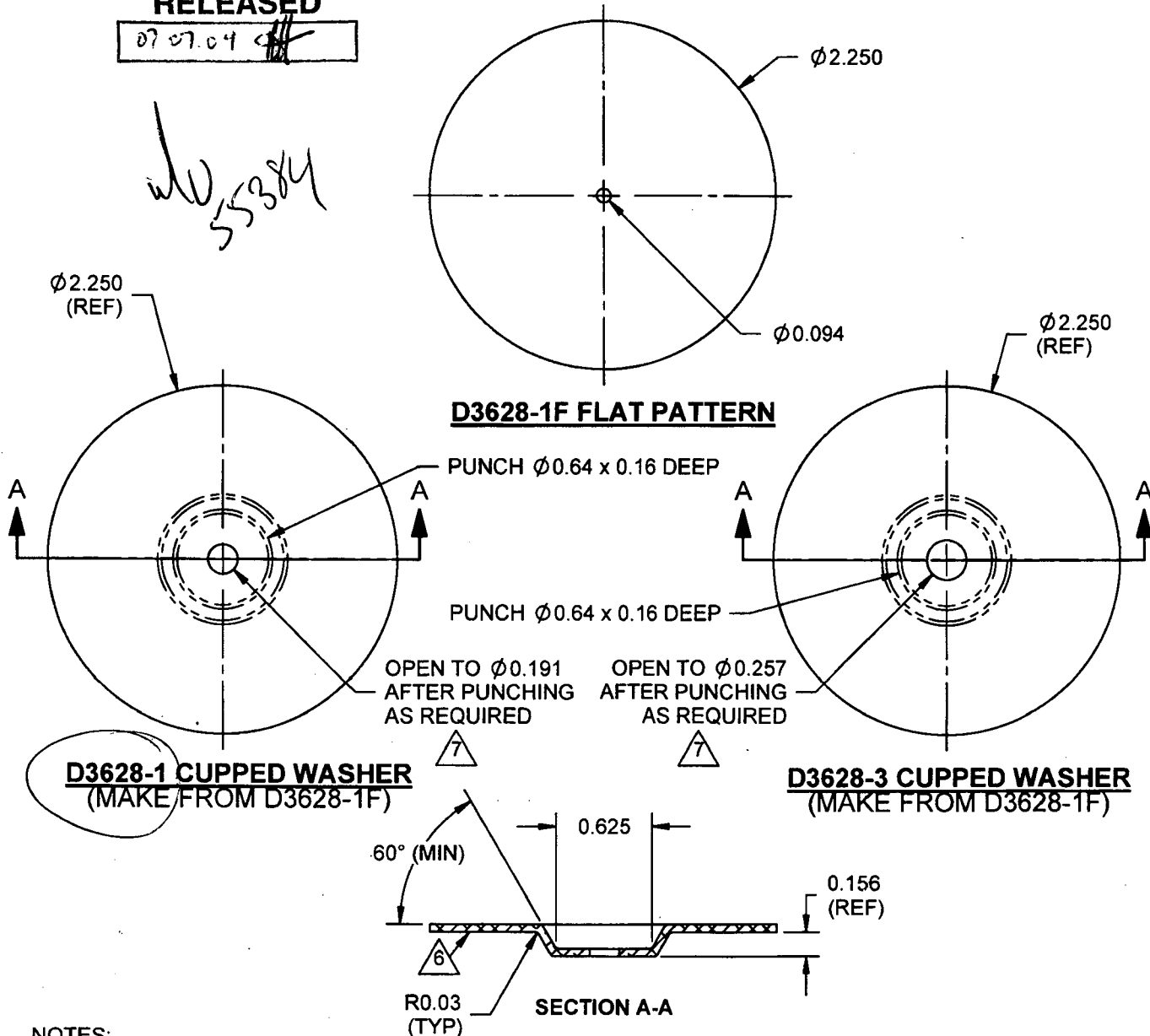
counties
(x770)
QSP019

DART

DESIGN CB	DRAWN BY CB	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED CE	APPROVED [Signature]	DRAWING NO. D3628	REV. B SHEET 1 OF 1
DATE 07.07.09		TITLE CUPPED WASHER	SCALE 1:1
REV	DATE	DESCRIPTION	
A	07.06.08	NEW ISSUE	
B	07.07.09	REMOVE POWDER COAT	

RELEASED07.07.04 **[Signature]**

WV 5384

**NOTES:**

- 1) MATERIAL: AISI 304/316 STAINLESS STEEL SHEET, 18 GAUGE (0.050 THICK) PER MIL-S-5019 (REF DART SPEC M304S18GA)
- 2) FINISH: NONE
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED
- 5) BREAK ALL SHARP EDGES 0.005 TO 0.010 MAX
- 6) IDENTIFY WITH DART P/N "D3628-1/-3" USING FINE POINT PERMANENT INK MARKER ON THE UNDERSIDE OF THE PART AS INDICATED
- 7) WHEN DRILLING OUT THE CENTRE HOLE AFTER PUNCHING, ENSURE THAT THE HOLE IS DRILLED CONCENTRIC TO THE CUPPED AREA, WITHIN 0.03

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SPECIFICATION CONTROL DRAWING

REFERENCE ONLY

PURCHASE MATERIAL: AISI 304/316 SS SHEET
ANNEALED
2B FINISH

SPECIFICATION: MIL-S-5059
OR AMS 5513 (304)
OR AMS 5524 (316)
OR ASTM A240
OR ASME SA240

PART NUMBER: M304S TT GA
GA

WHERE "TT" = GAUGE THICKNESS

EG. 16 GAUGE SS SHEET = M304S16GA

GAUGE THICKNESS REFERENCE:

GAUGE	NOM. THICK. (IN)	THICKNESS RANGE (IN)
26	0.01875	0.0178 - 0.019
25	0.021875	0.0199 - 0.023
24	0.025	0.024 - 0.026
23	0.028125	0.027 - 0.029
22	0.03125	0.030 - 0.032
21	0.034375	0.033 - 0.035
20	0.0375	0.036 - 0.040
19	0.04375	0.041 - 0.046
18	0.050	0.047 - 0.052
17	0.05625	0.053 - 0.058
16	0.0625	0.059 - 0.065
15	0.0703125	0.066 - 0.072
14	0.078125	0.073 - 0.083
13	0.09375	0.084 - 0.098
12	0.109375	0.099 - 0.114
11	0.125	0.115 - 0.130
10	0.140625	0.131 - 0.145
9	0.15625	0.146 - 0.160
8	0.171875	0.161 - 0.176

RELEASED
09/06/01

B	REFORMAT DWG. ADD ASTM/ASME SPECS (ZN D8-1), ADD GAUGE REF (C6-1), REF PAR 08-020A	CP	09.08.01
A	NEW ISSUE	DS	01.09.24
REV.	DESCRIPTION	BY	DATE
DESIGN		DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN		DRAWING NO.	REV. B
CHECKED		M304S	SHEET 1 OF 1
MFG. APPR.		TITLE	SCALE
APPROVED		304/316 SS SHEET	NTS
DE APPR.		COPYRIGHT © 2001 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD	
DATE	09.06.01		

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID **PO11137**

Purchase Order Date 1/15/10

PO Print Date 1/15/10

Page Number 1 of 1

Order From :

VC-GFI001

GFI
180 AVENUE LABROSSE
POINTE CLAIRE, QC H9R 1A1
CA

FAKED
PO11137

Contact Name		Buyer	Chantal Lavoie
Vendor Phone	514 630 4877	Requisition Nbr	
Vendor Fax	514 630 4849	Tax Resale Nbr	10127-2607
Vendor Account Nbr		Terms	Net 30
		Currency	CAD
		FOB	

Ship To : DART AEROSPACE LTD 1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

Line Nbr	Reference Revision ID Vendor Part Number	Description/ Mfg ID	Req Date/ Taxable	Req Qty/ Unit of Measure	Ship Method	Unit Price	Extended Price
1	D3628-1P	CUPPED WASHER	1/25/10 Yes	500.00 Each	Purolator ground	\$2.4160	\$1,208.0

Special Inst: Laser Cut D3628-1 flat pattern and form as
per Dwg D3628
As per DWG D3628 Rev: B
B55384

PO Total: \$1,208.0

Change Nbr: 1

Change Date: 1/15/10

No substitution or deviation without
consent.
Certificate of Conformity or Material
Certification required when applicable



180 AVENUE LABROSSE
POINT-CLAIRE, QC, CANADA H9R 1A1
TÉL.:(514) 630-4877 - FAX:(514) 630-4849

Il est une division de Thomas & Betts Fabrication Inc. / GFI is a division of Thomas & Betts Manufacturing Inc.



BON DE LIVRAISON / SHIPPING MEMO

DATE DE LIVRAISON / SHIPPING DATE			N° DE BON DE LIVRAISON SHIPPING MEMO NO.	PAGE
JR - DY	MO. - MO.	AN. - YR		
28	01	10	0431566	1/1



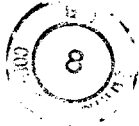
NDU À / SOLD TO


EXPÉDIÉ À / SHIP TO

DART AEROSPACE LTD
1270 ABERDEEN ST.
HAWKESBURY, ON
K6A 1K7

DART AEROSPACE LTD
1270 ABERDEEN ST.
HAWKESBURY, ON
K6A 1K7

CODE DE CLIENT CUSTOMER CODE	N° DE CONTRAT JOB NO.	VOTRE N° DE COMMANDE YOUR PURCHASE ORDER NO.	EXPÉDIÉ PAR SHIP VIA
DART GFI-0299	0209317	PO11137	

QUANTITÉ QUANTITY	N° DE PIÈCE PART NO.	DESCRIPTION
500	D36281	CUPPED WASHER CERTIFICATE OF CONFORMANCE REQ
MFG. JOB # <u>J0193024-01</u> QTY <u>6</u>		
MFG. JOB # <u>J0209317-001</u> QTY <u>494</u>		
		
S 10/02/01		

EXPÉDITEUR SHIPPER	N° DE BON DE LIVRAISON SHIPPING MEMO NO.
	

REÇU PAR / RECEIVED BY

DATE

TOUTES LES RÉCLAMATIONS DOIVENT ÊTRE FAITES EN DEDANS DE 5 JOURS DE LA RÉCEPTION.
ALL CLAIMS MUST BE MADE WITHIN 5 DAYS OF RECEIPT OF GOODS.

CERTIFICATE OF COMPLIANCE
CERTIFICAT DE CONFORMITE



Membre de / A Member of **Thomas & Betts**

180 LABROSSE AVENUE
POINTE CLAIRE, QC
H9R 1A1

DART AEROSPACE LTD
1270 ABERDEEN ST.
HAWKESBURY, ON K6A 1K7

S
10/02/14

CERTIFICATE NO. 4 OUR JOB NO J0209317 SHIPPING MEMO 0431566

ITEM	QUANTITY	PURCHASE ORDER	PART NUMBER	REV	NAME	DWG ISSUE
--	<u>500 PCS</u>	<u>PO11137</u>	<u>D36281</u>	<u>B</u>	<u>CUPPED WASHER</u>	<u>B</u>

MATERIAL AMS 5513 304 ANN SUPPLIED BY TW METALS / ALLEGHENY LUDLUM MAT. REL. NO. H/N # 828159

	PROCESS	PROCESSOR	RELEASE NOTE #
1	<u>FIRST ARTICLE INSPECTION REPORT ON FILE</u>	<u>GFI</u>	<u>CONFORMS</u>
2	<u>REF. GFI MANUFACTURING JOB NUMBER J0193024-01 (6 PCS) AND J0209317-001 (494 PCS)</u>		
3			
4			
5			
6			
7			
8			
9			

WE HEREBY CERTIFY ALL THE PARTS COVERED BY THIS CERTIFICATE HAVE BEEN MANUFACTURED FROM MATERIAL SUPPLIED ON RELEASE NOTE SHOWN ABOVE AND THAT ALL PARTS HAVE BEEN INDIVIDUALLY INSPECTED AND CONFORM TO THE DRAWINGS AND PURCHASE ORDER REFERENCED ABOVE.

DATE 28 JANUAR 2010

G.F.I. Q.C. REP.

Walter H. H. H.

DP12-001 REV 0 Bombardier Certificate of Compliance
TW Metals District Procedure

Revision 0

Revision Date 04-03-00

Superseding Initial

Page 1 of 1

CERTIFICATE OF COMPLIANCE

FRAUD AND FALSIFICATION STATEMENT

The recording of false, fictitious or fraudulent statements or entries on this document may be punished as a felony under federal statutes including federal law Title 18 chapter 47

CERTIFICATE OF COMPLIANCE

This certificate of compliance certifies that the material supplied on the purchase order number below complies in all respects with the material description and procurement specifications

MERCURY FREE STATEMENT

We certify that mercury, radium, or alpha bearing instruments and / or equipment which might cause contamination have not been used in the manufacture, fabrication, assembly or testing of any material supplied by TW Metals Inc. Switches, glass thermometers, standard cell and other items containing the above elements may be used, but they will be located so as not to constitute a contamination hazard

CUSTOMER NAME

GFI

PURCHASE ORDER No

0076171

ITEM No

0001

SHIPPER INVOICE No

03253935

MATERIAL

345/S Sheet

SPECIFICATION

Ams 5513

MANUFACTURING MILL

ATI Allegheny Ludlum

SIZE

.050

HEAT / LOT No

828159

PART No

TS05048X964A

QUANTITY

1 EA

TEST DEPARTMENT CLERK

Amy Davis

AUTHORITY

Joe Schab

Director of Quality Assurance

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NOTICE OF SHIPMENT/
PACKING LIST



CERTIFICATE OF TEST

CUST. ORDER NO. & DATE

01013857

QUANTITY

1

SOLD TO

02/04/09 110977

CUST CODE

VANDERGRIFF, PA.

82037 5

PRIME SEC.

DSO DSO

584

SHIPPER NO.

416619

PRODUCT CODE

230201C2060000

CHILDREN NUMBER

30-029-053

DATE SHIPPED

03/27/09

SHIP TO

1124 VANDERGRIFF

PA

054693

CARRIER - SYSTEM TRANSPORTATION

GRADE AND SPECIFICATIONS
ALLEGHENY STAINLESS STEEL TYPE 304 SHEET C R COILS ANNEALED 2B FIN 3 EDGE (UPM 304L/304/302 LCS) (AMS 2248F) (AMS 5511H) (AMS 5513H) (AMS 5516P) (ASTM-A-262-02A PRA E/SCREEN PRA A) (ASTM-A-665-03) (S-400 DTD 10/31/07) (ASTM-A-240-08) (S-100C DATED 1/2/08) (ASME-SA-240-07) (10/22/08 EXCEPT UPM 304L/304/302) (UNS S30403) (UNS S30200) (UNS S30400) (UPM-QRS-001) (PWA 100 REV BH) (F-14, F-17, F-22, F-23, F-MASTER) (CONTROLLED TO PWA LCS REQUIREMENTS)

ITEM PCS DIMENSIONS W/G/L

001 1 48.1.050/2235.

C CUST IDENTITY 00624

1 SKIT

HEAT # COIL #

828159 02069W549

TEST #

8759819

GROSS TARE NET

18705 50 18655

THEO TAG #/ CD SKID #

633729

TYPE HEAT/TEST

HEAT 828159

CHECK 8759819

--C--	--M--	--P--	--S--	--SI--	--CR--	--NI--	--MO--	--CU--	--X--
.020	1.72	.031	.001	.13	18.49	8.12	.46	.48	.07
.021	1.72	.031	.001	.14	18.49	8.14	.46	.48	.07

YIELD TENSILE & ELONG

PSI PSI IN 2" & R/A

HARDNESS

B4.HRBW

B5.HRBW

BEND

T PASS

CORROSION

A 262 PR E

PASS

GRAIN

SIZE

8.

ITEM TEST NO

001 8759819

T 44400. 96500. 71.

* Y.S. BY 0.2% OFFSET METHOD

ITEM TEST NO

001 8759819

MELT

SOURCE

1.

PSW E-25

TRAN BEND

2.

METALLOGRAPHIC MAGNIFICATION: 100X ETCHANT USED: OXALIC ACID

GRADE VERIFICATION WAS CARRIED OUT SPECTROSCOPICALLY

PAGE 01 - CONTINUED ON PAGE 02

ATTENTION: Please Note - This document is intended for use by the customer only. It is not to be used for any other purpose. The customer is responsible for the accuracy of the information provided. The customer is also responsible for the accuracy of the information provided. The customer is also responsible for the accuracy of the information provided.

Material Data Sheet for the product has been prepared by the Packaging Department. For all customer copy requests, please contact the Packaging Department at 724-228-8477. CAUTION: Packaging Department is not responsible for the accuracy of the information provided. The customer is responsible for the accuracy of the information provided.

WARNING: The above information is provided as a guide only. It is not intended to be used for any other purpose. The customer is responsible for the accuracy of the information provided. The customer is also responsible for the accuracy of the information provided. The customer is also responsible for the accuracy of the information provided.

03/27/09 08:56:59

The above is a true copy of the original. The original is held by the Allegheny Ludlum Steel Corporation.

Allegheny Ludlum Steel Corporation

Allegheny Ludlum Steel Corporation

Allegheny Ludlum Steel Corporation



REVIEWED BY Q.C.
Date 3/18/09 By [Signature]

NOTICE OF SHIPMENT/
PACKING LIST



CERTIFICATE OF TEST

AL 0150-3 503

INSTR. ORD. NO. & DATE

01013887

FORMER INSTRUCTIONS

OLD 1

SOLD TO

CUST CODE

02/04/09 110977

VANDERGRIFF, PA.

ACCEPTANCE MILL

SHIPPER NO

416619

PRODUCT CODE

13020102060000

WEL. ORDER NUMBER

30-029-053

DATE SHIPPED

03/27/09

NATL

1124 VANDERGRIFF

PA

654693

SHIP TO

REPEAT ORDER
82037-5
PRIME SEC.
DSO DSO
584

CARRIER - SYSTEM TRANSPORTATION
GRADE AND SPECIFICATIONS
ALLEGHENY STAINLESS STEEL TYPE 304 SHEET C R COILS ANNEALED 2B FIN 3 EDGE (UPM 304L/304/302 LCSI (AMS 2248F) (AMS 5511H) (AMS 5513H) (AMS 5516P) (ASTM-A-262-02A PRA E/SCREEN PRA A) (ASTM-A-666-03) (S-460 DTD 10/31/07) (ASTM-A-240-08) (S-1000 DATED 1/2/08) (ASME-SA-240-07) 110/22/08 EXCEPT UPM 304L/304/302) (UNS S30403) (UNS S10200) (UNS S30400) (UPM-QRS-001) (PRA 300 REV BH) (F-14, F-17, F-22, F-23, F-MASTER) (CONTROLLED TO PWA LCS REQUIREMENTS)

AUSTENITIC STAINLESS STEELS ARE SOLUTION ANNEALED AT 1900 DEGREES FAHRENHEIT MINIMUM (1038 C) AND RAPIDLY COOLED TO DEVELOP THE SPECIFIED PROPERTIES. EVIDENCE OF CONFORMANCE IS PROVIDED BY THE ABILITY OF THE MATERIAL TO MEET THESE SPECIFIED MECHANICAL AND CORROSION REQUIREMENTS

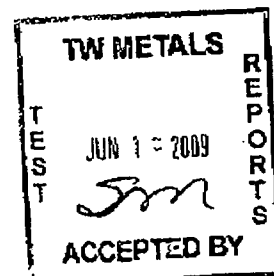
ALLEGHENY LUDLUM DOES NOT USE MERCURY IN THE TESTING OR PRODUCTION OF ITS PRODUCTS. TO THE BEST OF ALLEGHENY LUDLUM KNOWLEDGE, UNDERSTANDING, AND BELIEF, THIS MATERIAL WAS NOT CONTAMINATED BY MERCURY WHILE IT WAS BEING PRODUCED IN OUR FACILITIES.

NO WELDS/WELD REPAIRS PERFORMED.

THE NUMERIC CODES SHOWN UNDER MELT SOURCE CAN BE INTERPRETED AS FOLLOWS:

1. - MATERIAL MELTED AND ROLLED IN THE UNITED STATES AND COMPLIES WITH DEARS EDITION 1998, SECTION 252.225-7014
2. - FOREIGN MELT AND ROLLED IN THE UNITED STATES

PAGE 02 - CONTINUED ON PAGE 03



03/27/09 08:56:59

CONSUMER: Please Note: The container will be marked with the date of first class condition, being correctly labeled, at which time the responsibility for loss or damage in shipment is assumed. For your protection please examine shipment as it is received. If any damage or shortage is discovered, please advise the carrier immediately. A bill of lading will be provided to you upon receipt of the shipment.

Material Safety Data Sheet for this product have been included in your Purchasing Department. For an additional copy please call 724-225-6577. CAUTION: Preparing this sheet may cause a solution may cause long distance and there may be some health and safety hazards.

WARNING: Let these instructions account for on product and all become a vital document change and action. For additional information and instructions, please call 724-225-6577. CAUTION: Preparing this sheet may cause a solution may cause long distance and there may be some health and safety hazards.

See above for a true copy of data on file. The material and test results conform to the (ASTM) standard and specifications listed on the label. (ASTM) standard and specifications listed on the label. (ASTM) standard and specifications listed on the label.

[illegible]



CERTIFICATE OF TEST

41-61623-3 600

CUST. OFC. NO. & DATE

01023007

010-3887

POLICE DISTRIBUTION

GOV 10→	1	(SMP) 10→	SIP →
------------	---	--------------	----------

END TO

02/04/09 110977

CUST CODE
110977

VANDERGRIFF, PA.

SHIPMENT NO.
415619
GOLD PORTFOLIO

PRODUCT CODE

MAIL ORDER NUMBER

DATE SHIPPED

13020102060000 30-029-053 103/27/09

NAME	SHIPPING LOCATION	MODEL
1020	MANHATTAN	HA 654693

SHIP TO

REPEAT ORDER DO DATE PRT CRT
B2037-5 26
PRIME SEC.
DSO DSO
584

GRADE AND SPECIFICATIONS

CARRIER - SYSTEM TRANSPORTATION
 ALLEGHENY STAINLESS STEEL TYPE 304 SHEET C R COILS ANNEALED 28 FIN 3 EDGE (UPM 304L/304/302 LCS) (AMS 2248F) (AMS 5511H) (AMS 5513H) (AMS 5536P) (ASTM-A-262-O2A PRA E/SCREEN PRA A) (ASTM-A-666-03) (S-400 JTD 10/31/07) (ASTM-A-240-08) (S-1000 DATED 1/2/08) (ASME-SA-240-07) (10/22/08 EXCEPT UPM 304L/304/302) (UNS S30403) (UNS S30206) (UNS S30400) (UPH-QRS-Q01) (PWA 390 REV BH) (F-14, F-17, F-22, F-23, F-MASTER)
 [CONTROLLED TO PWA LCS REQUIREMENTS]

CARRIER - SYSTEM TRANSPORTATION

21. AGENCY LIAISON PERFORMS CHEMICAL ANALYSIS BY THE FOLLOWING TECHNIQUES:

ALLEGHENY LEADON PERFORMED
C.S BY COMBUSTION/INFRARED

C.S BY COMBUSTION/INFRARED
N.O.H BY INERT FUSION/THERMAL CONDUCTIVITY

MIN, P, S, CR, NI, MO, CU, CB, CO, V BY WDXRF

BY OES

AL AND TI ($\geq 0.10\%$) BY WDXRF, OTHERWISE BY OES

PB, BT, AG BY GPAA

FINAL MECHANICAL TESTING PERFORMED BY WESTMORELAND MECHANICAL TESTING & RESEARCH, A GEAR S400 AND ISO/IEC 17025 APPROVED FACILITY.

ISO/IEC 17025 APPROVED FACILITY.
MATERIAL MELTED AND ROLLED IN THE UNITED STATES AND COMPLIES WITH DFARS EDITION 1998, SECTION 254.225-7014

LOCATES OF TEST >>>>>>>
TRA.COM >>>>>>>

Moor Metals Inc.

Major #

CASI PO #

Pl #

Aloy/Spec

Quantity & Size

Mill

Lot # / Heat #

Authorized Signature _____

02/27/2009 11:30
SURANCE DEPARTMENT

considérez ce ce produit, et les formes à venir
il achète Pour obtenir des exemplaires supplémentaires
il numéro indiqué 724-226-6577. Attention ne
la production de vapours, comme il se trouve
à l'adresse suivante, pour plus de renseignements et
commandes supplémentaires.

The above is a true copy of each of the five identical copies
submitted conforming to the same format and handwriting as the
copy in the original document.

THOMAS McFARLANE -
THOMAS McFARLANE, 1000 1st Ave. S.W., Seattle, Wash.